

THE CLAIMS

1. Wire pit for use in the approach system of a paper, paperboard or the like web formation machine, the wire pit (50) comprising at least devices (58) for receiving white waters, devices (60) for stabilizing the surface level in the wire pit, devices for separating gas from the white waters and devices (56) for connecting the wire pit to a mixing pump (12), **characterized** in that the wall/walls (52', 52'', 54', 62) of the wire pit (50) converge downwards so that the average flow direction of the liquid at the most part of the wire pit's (50) height deviates from vertical.
2. Wire pit according to claim 1, **characterized** in that part (52'') of the wire pit's (50) wall (52', 52'', 54', 62) is sloped at its whole height downwards and outwards.
3. Wire pit according to claim 1, **characterized** in that essentially the whole cross section of the wire pit (50) is converging towards the flow direction and that the wire pit (50) comprises at least an upper part (52) and a lower part (56) which lower part (56) may be positioned in several angular positions in relation to said upper part (52).
4. Wire pit according to claim 3, **characterized** in that the wire pit (50) further comprises a third part (54) located between said upper (52) and lower (56) part in such a way that it may be positioned in several angular positions in relation to at least one of said parts.
5. Wire pit according to claim 3, **characterized** in that said lower part (56) either alone or together with an intermediate pipe forms said devices for connecting the wire pit to the mixing pump (12).

6. Wire pit according to claim 1, **characterized** in that said devices for receiving white waters comprise a chute portion (58), the bottom of which forms the bottom of the wire pit (50) at that location.
- 5 7. Wire pit according to claim 1, **characterized** in that said devices for receiving white waters comprise a chute portion (58), which has been divided to at least two parts (82, 84; 82', 84') wherein white waters with various fiber contents are directed.
- 10 8. Wire pit according to claim 1, **characterized** in that said devices for receiving white waters comprise a chute portion (58), wherein white waters are directed in several flows with various fiber contents.
9. Wire pit according to claim 1, **characterized** in that said devices for
15 keeping the surface level constant comprise an overflow portion (60) located at the upper edge of the wire pit's (50) wall (62).
10. Wire pit according to claims 7 and 9 or 8 and 9, **characterized** in that said chute portion (58) is followed in the flow direction of the white waters by a
20 deflector (84) used for hampering the flow of white waters having a higher fiber content to the overflow portion (60) of the wire pit (50) by guiding said white waters with a higher fiber content to a zone of the wire pit (50) devoid of overflow.
- 25 11. Wire pit according to claim 6, **characterized** in that the wall (52/62) of the wire pit (50) located opposite the chute portion (58) is sloped downwards and outwards for 5 – 30 degrees from the vertical.
12. Wire pit according to claim 6, **characterized** in that the wall (52') of the
30 wire pit (50) located as an extension of the chute portion (58) in the flow direction of the liquid descends in an angle of 20 – 45 degrees.

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13. Wire pit according to claim 12, **characterized** in that the wall (54') of the middle part (54) of wire pit (50) following the wall (52') in the flow direction of the liquid descends in an angle of 35 – 55 degrees.
- 5 14. Wire pit according to claims 7 and 9 or 8 and 9, **characterized** in that over 50 % of the overflow portion (60) of the wire pit (50) is placed in a zone containing fraction with a lower fiber content.
- 10 15. Wire pit according to claim 7, **characterized** in that in connection with the overflow portion (60) or the flow channel (70) for liquid discharged from the wire pit (50) by means of said overflow portion there is arranged a device separating fiber fraction from the overflow liquid.
- 15 16. Wire pit according to claim 15, **characterized** in that said device is a curved screen or pressure screen.
- 20 17. Wire pit according to claim 1, **characterized** in that the devices for separating gas from the white water comprise the upper part (52) of the wire pit (50), which upper part in its turn comprises a chute portion (58) and an overflow portion (60).
- 25 18. Wire pit according to claim 1, **characterized** in that the height of the overflow edge (62') of the wire pit from the center line of the outlet opening of the lower part of the wire pit (50) is 2 – 5 times the diameter of the outlet opening.
19. Wire pit according to claim 1, **characterized** in that inside the walls of the wire pit (50) there is/are arranged one or more deflector/s positioned in flow direction.

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